

Des 468 espèces de notre faune il y aura à peu près 200 qui se trouvent dans les collections de Bogota (Nouvelle Grenade orientale).

La faune d'Antioquia possède aussi quelques espèces de notre région qui ne sont pas encore trouvées ailleurs, comme : *Automolus holostictus* et *A. ignobilis*.

Du reste il faut remarquer que quelques espèces ne se trouveront dans les régions dont nous parlons que de passage en hiver. Ils nichent dans l'Amérique du nord, dans les Etats Unis et quelques-unes plus au nord encore. Les voila :—

| | |
|-------------------------|-------------------------|
| Turdus swainsoni. | Rallus virginianus. |
| Setophaga ruticilla. | Porzana carolina. |
| Pyrranga æstiva. | ? Nycticorax violaceus. |
| Hedymeles ludovicianus. | Hoplopterus cayanus. |
| Dendroëca blackburniæ. | Ægialites semipalmata. |
| Empidonax acadicus. | Gambetta flavipes. |
| Contopus richardsoni. | Micropalama himantopus. |
| Coccyzus americanus. | Tringoides macularius. |
| Buteo pennsylvanicus. | Limosa fedoa. |

2. On the Lepidoptera of Bombay and the Deccan. By Lieut.-Col. C. SWINHOE, F.L.S., F.Z.S.—Part I. RHOPALOCERA.

[Received January 9, 1885.]

(Plate IX.)

The contents of this paper show the results of two years' daily collections and observations made by me personally at Poona and Bombay in 1882-83, and also for a short time in 1877. At the latter place I kept a large number of breeding-cages and had a great many Moths; and Mr. Taplin did the same on my account at Poona, and collected very largely for me at that place during the time my duties kept me in Bombay. Out of the two years I remained ten months in Poona, and the remainder of the time in Bombay; and during the whole period I had a trained native collector in my employment, who collected every day, and I have kept a careful record of the numbers of each description of Butterfly and Moth captured by him each day; I can therefore certify to the absolute correctness of the dates given, and whenever it is stated that any particular insect occurs from, say, May to December, it means that I actually got that insect in every month from May to December.

Mr. Kennedy collected for me at Ahmednuggur, and Major Hughes and Mr. Skinner at Belgaum. I brought home over ten thousand duplicates, all of which have been set up and carefully compared; and I have given types of every insect mentioned in this paper to the British Museum.

Lord Walsingham has very kindly worked out the Tineina and Tortrices; and Mr. Butler and Mr. Moore have given me great assistance in examining the national collection and the magnificent private collection of the latter.



1.



2.



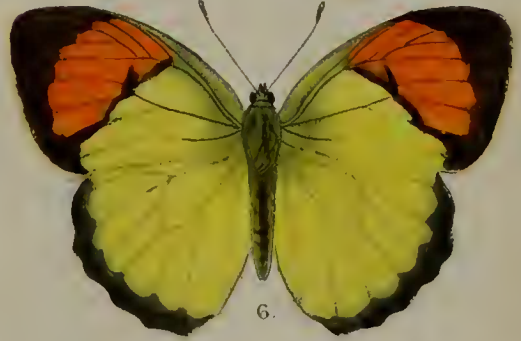
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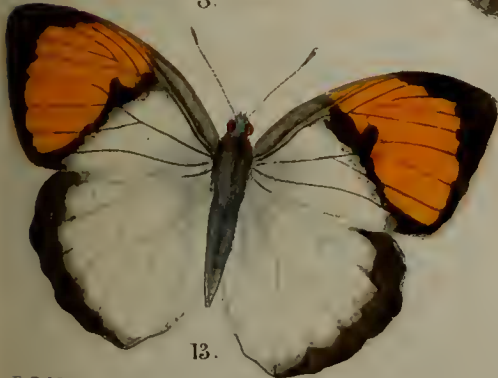
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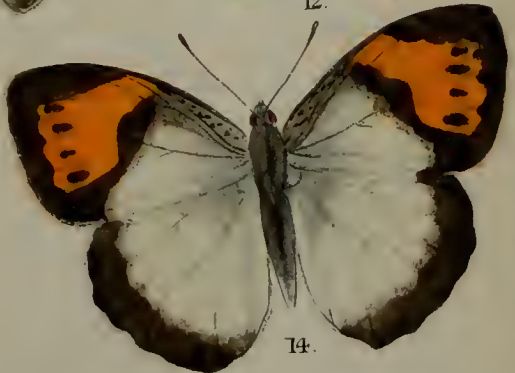
10.



12.



13.



14.

NYMPHALIDÆ.

EUPLÆINÆ.

1. TIRUMALA LIMNIAE.

Pap. limniace, Cramer, Pap. Exot. i. pl. 59. figs. D, E (1775).
Common everywhere all the year round.

2. PARANTICA MELANOIDES.

Parantica melanoides, Moore, P. Z. S. 1883, p. 247.
Poona, November; Mahableshwur, May; Bombay.

3. PARANTICA AGLEA.

Pap. aglea, Cramer, Pap. Exot. iv. pl. 377. fig. E (1782).
Poona, June, November, and December; Belgaum; Mahableshwur; Bombay.

This insect is almost identical with *P. grammica*, Boisd., from Java, but is quite distinct from *P. melanoides*. In the former the lower subapical streak runs in close to the cell-streak in the fore wings, just below the centre of the first subcostal spot; whereas in the latter species there is a wide division between the two streaks, the two subapical streaks have both their inner ends together, and are just below the innerside of the second subcostal spot; there are also other distinct differences which are very constant in the many examples of both species in my collection.

4. SALATURA GENUTIA.

Pap. genutia, Cramer, Pap. Exot. iii. pl. 206. figs. C, D (1779).
Common everywhere all the year round.

5. LIMNAS CHRYSIPPUS.

Pap. chrysippus, Linn. Syst. Nat. p. 471 (1758).
Var. *alcippoides*, Moore, P. Z. S. 1883, p. 238, pl. 31. fig. 1.

Common everywhere all the year round. Varieties with more or less white in the hind wings occur here and there; I have them of all sorts and colours, from different parts of India; commencing with some taken in Bombay, in which the veins only are white, a Mhow example with merely a discal white patch, and Kurrachee examples in some of which the hind wing is nearly all white and some only part white; and in none of these is the lower discal spot on the red area of the fore wings, which is one of the distinguishing marks of Moore's type of *L. alcippoides*, whereas I have one true *L. chrysippus* female taken at Kurrachee with this spot clear and large. It is impossible to separate these white-marked insects from the true *L. chrysippus*, because a long series will show a regular gradation, from no white to all white in the hind wings; and this is also the case with the following species, which I believe to be a true species. It has also many varieties of white on the hind wings, and

Mr. Butler has pointed out to me that Klug's type of *L. dorippus* has white hind wings, a fact which appears to have been entirely overlooked; but this does not entitle the *all red L. dorippus* to a new name, because Klug happens to have figured an inconstant variety instead of the normal form.

6. LIMNAS DORIPPUS.

Euplœa dorippus, Klug, Symb. Phys. pl. 48. figs. 1-5 (1829).

Poona, October and December; Khandalla, October; Bombay, August.

7. CRASTIA CORE.

Pap. core, Cramer, Pap. Exot. iii. pl. 266. figs. E, F (1780).

Euplœa vermiculata, Butler, P. Z. S. 1866, p. 276.

Common everywhere all the year round; the variety *E. vermiculata* is very plentifully met with throughout the whole district, and there are so many intermediates, that it is impossible to separate the two forms.

8. PADEMMA KOLLARI.

Euplœa kollari, Felder, Reise Nov., Lep. ii. p. 325 (1867), ♂.

Poona, September; Bombay, August.

Is not often met with, but I do not believe it is rare; it so exactly resembles *E. core* in coloration that it is passed over as *E. core*. In September in Poona, and again in the following August in Bombay, I made my collector catch every *E. core* he could find, and thus got a few *E. kollari* in each place; it is quite distinct from *P. sinhala* of Ceylon. The female is very similar in all its markings to the male, and only differs in the absence of the whitish sexual patch in the cell of the hind wings, and in having the hinder margin of the fore wings straight. I have several examples taken with males from Calicut, where this species is quite common.

SATYRINE.

9. MELANITIS LEDA.

Pap. leda, Linn. Syst. Nat. i. 2, p. 773 (1767).

Common in all moist places from July to October.

10. MELANITIS ISMENE.

Pap. ismene, Cramer, Pap. Exot. i. pl. 26. figs. A, B (1775).

Common in all moist places all the year round; very plentiful in winter.

11. CALYSISME PERSEUS.

Pap. perseus, Fabr. Syst. Ent. p. 488 (1775).

Poona, October and November; Bombay, October.

Not common.

12. CALYSISME VISALA.

M. visala, Moore, Cat. Lep. E. I. C. i. p. 230 (1857).

Poona, October.

Taken in company with the above.

13. YPTHIMA ALEMOLA, n. sp.

Poona, October to June.

Very common. Allied to *Y. asterope*, Hübner, and *Y. mahratta*, Moore.

♂ ♀. Upper side very similar to *Y. asterope*, which is an African insect. Underside much paler and of a different hue, greyish white, very plentifully covered with pale reddish-brown striæ, more dense in the fore than in the hind wings; fore wings with a brown fascia from the costa round the ocellus back to the costa, diffuse and deep below the ocellus; hind wings with three sinuous fasciæ across the wing—first before the middle, second beyond the middle, third sub-marginal; one or other of these fasciæ is very often obsolete. The striæ are denser towards the base of the wing, leaving the outer half of the wing whitish; two anal and one apical blind dot, in the place of the well-formed ocelli with yellow rings of *Y. asterope*; one or other of these dots is often wanting, in some specimens all are wanting.

I have examined over two hundred examples of this species.

Expanse of wings $1\frac{2}{10}$ – $1\frac{4}{10}$ inch.

14. YPTHIMA HUEBNERI.

Y. hübneri, Kirby, Syn. Cat. D. L. p. 95 (1871).

Y. philomela, Hübner (nec Linnæus), Zur. Exot. Schmett. figs. 83, 84 (1818).

Mahableswhnr, May.

15. YPTHIMA BALDUS.

Pap. baldus, Fabr. Syst. Ent. App. p. 829.

Bombay, November.

16. YPTHIMA MAHRATTA.

Y. mahratta, Moore, Journ. As. Soc. Bengal, vol. liii. pt. 2, no. 1, p. 1 (1884).

Bombay, October and November.

17. LETHE NEELGHERRIENSIS.

Satyrus (Cyllo) neelgherriensis, Guérin in Delessert's Voy. dans l'Inde, pt. 2, p. 74, pl. 21. figs. 1, 1a (1843).

Belgaum, no date; Poona, November.

ACRÆINÆ.

18. TELCHINIA VIOLÆ.

Pap. violæ, Fabr. Syst. Ent. p. 460 (1775).

Poona, January to April; Bombay, September.

NYMPHALINÆ.

19. CETHOSIA MAHRATTA.

C. mahratta, Moore, P. Z. S. 1872, p. 556.

Belgaum.

A very rare insect in the Mahratta country, but quite common at Calicut.

20. ATELLA PHALANTA.

Pap. phalanta, Drury, Ill. Ex. Ent. i. pl. 21. figs. 1, 2 (1773).

Common everywhere.

I took it at Poona in every month except July, August, and September, and in Bombay from July to December.

21. ARGYNNIS NIPHE.

Pap. niphe, Linn. Syst. Nat. i. 2, p. 785 (1767).

Bombay, 1877; I took several examples, but have not observed it since.

22. PYRAMEIS CARDUI.

Pap. cardui, Linn. Faun. Suec. p. 276 (1761).

Common everywhere from September to December.

23. PYRAMEIS INDICA.

Pap. indica, Herbst, Nat. Schmett. vii. t. 180. figs. 1, 2 (1794).

Bombay. I took several examples in 1877, but have not observed it since.

24. JUNONIA LEMONIAS.

Pap. lemonias, Linn. Mus. Ulr. p. 277 (1764).

Commonly found in ditches all the year round.

25. JUNONIA HIERTE.

Pap. hierte, Fabr. Ent. Syst. Suppl. p. 424 (1798).

Commonly found in ditches all the year round.

26. JUNONIA ORYTHIA.

Pap. orythia, Linn. Mus. Ulr. p. 278 (1764).

Commonly found in ditches all the year round.

27. JUNONIA ASTERIE.

Pap. asterie, Linn. Syst. Nat. i. 2, p. 769 (1767).

28. JUNONIA ALMANA.

Pap. almana, Linn. Mus. Ulr. p. 272 (1764).

The latter is common everywhere all the year round; the former (*I. asterie*) is common in the latter half of the year. I am convinced that although the types of each are so different they are both one and the same insect, one being the normal and the other the dimorphic form, though unfortunately I have not yet been able to produce

both from the eggs of what I actually know to be one female. Mr. Aitken in Bombay produced both from the same group of larvæ taken together; and I have a long series of examples showing every stage of variety between the two.

29. *PRECIS IPHITA*.

Pap. iphita, Cramer, Pap. Ex. iii. pl. 209. figs. C, D (1782).

Poona, June; Matheran, May; Belgaum, September and October, in great plenty; Bombay, October and November, common.

30. *KALLIMA WARDI*.

Kallima wardi, Moore, Trans. Ent. Soc. 1879, part i. p. 14.

Poona, August; Khandalla ghats, August.

A very difficult insect to capture, as it keeps to the tops of the trees on the slopes of the hills.

31. *ERGOLIS ARIADNE*.

Pap. ariadne, Linn. Syst. Nat. i. 2, p. 778 (1767).

Poona, September to February; Mahableshwur, May; Bombay (no date).

32. *HYPANIS POLINICE*.

Pap. polinice, Cramer, Pap. Ex. iv. pl. 375. figs. G, H.

Poona, September to December; Ahmednuggur, June to November.

33. *HYPANIS SIMPLEX*.

Hypanis simplex, Butler, P. Z. S. 1883, p. 146, pl. 24. f. 8.

Poona, September to January.

34. *HYPOLIMNAS BOLINA*.

Pap. bolina, Linn. Mus. Ulr. p. 295 (1764).

Common everywhere from July to January.

35. *HYPOLIMNAS AVIA*.

Pap. avia, Fabr. Ent. Syst. iii. 1, p. 111 (1793).

Common everywhere all the year round.

36. *HYPOLIMNAS MISIPPUS*.

Pap. misippus, Linn. Mus. Ulr. p. 264 (1764).

Common everywhere throughout the year; very plentiful in the winter. The female commonly has the coloration and markings of *Limnas dorippus*.

37. *NEPTIS ASTOLA*.

Neptis astola, Moore, P. Z. S. 1872, p. 560.

Matheran, May; Sattara, November; Poona and Bombay from September to December. Found in hilly districts.

38. *ATHYMA LEUCOTHOË*.

Pap. leucothoë, Linn. Mus. Ulr. p. 292 (1764).
Belgaum, Khandalla, December; in hilly places.

39. *EUTHALIA GARUDA*.

Adolias garuda, Moore, Cat. Lep. E. I. C. vol. i. p. 186 (1857).
Common everywhere from October to May.

40. *SYMPHÆDRA NAIS*.

Pap. nais, Forst. Nov. Spec. Ins. p. 73 (1771).
Pap. thyelia, Fabr. Ent. Syst. iii. 1, p. 142 (1793).
Belgaum, Poona, April.

41. *CHARAXES SAMATHA*.

Charaxes samatha, Moore, P. Z. S. 1878, p. 831.
Matheran, December.

42. *CHARAXES FABIUS*.

Pap. fabius, Fabr. Spec. Ins. ii. p. 12 (1781).
Poona, February, April, November; Belgaum; Bombay,
November.

LEMONIIDÆ.

LIBYTHÆINÆ.

43. *LIBYTHEA LEPITA*.

L. lepita, Moore, Cat. Lep. E. I. C. vol. i. p. 240 (1857).
Bombay.

44. *LIBYTHEA MYRRHA*.

L. myrrha, Godt. Enc. Méth. ix. p. 171 (1810).
Bombay.

NEMEOBIINÆ.

45. *ABISARA FRATERNA*.

Abisara fraterna, Moore, P. Z. S. 1883, p. 532.
Poona, September; Khandalla, November; Bombay.

46. *DODONA EUGENES*.

Dodona eugenes, Bates, Journ. Linn. Soc., Zool. ix. p. 371 (1867).
Bombay.

LYCÆNIDÆ.

47. *POLYOMMATUS BÆTICUS*.

Pap. bæticus, Linn. Syst. Nat. ii. p. 789 (1766).
Common everywhere, from October to June; there are three or

four broods in succession; the butterfly varies very much in size, and some of those taken in the winter are very diminutive.

48. LAMPIDES ÆLIANUS.

Hesperia ælianus, Fabr. Ent. Syst. iii. 1, p. 280 (1793).

Poona, October, November, and March; Belgaum, September; Bombay, October.

49. LAMPIDES ALEXIS.

Pap. alexis, Stoll. (nec Scop.), Suppl. Cram. pl. 38. figs. 3-3 C (1790).

Poona, November to April; Bombay, November and December.

50. JAMIDES BOCHUS.

Pap. bochus, Cramer, Pap. Exot. iv. pl. 391. figs. C, D (1782).

Poona, November, January, and June; Bombay, October to December.

51. CATOCHRYSOPS STRABO.

Hesperia strabo, Fabr. Ent. Syst. iii. 1. p. 287 (1793).

Lyc. kandarpa, Horsf. Cat. Lep. E. I. C. vol. i. p. 82 (1829).

Poona, very plentiful all the dry season from October to June; Bombay, observed in December only.

52. CATOCHRYSOPS CNEJUS.

Hesperia cnejus, Fabr. Ent. Syst. v. Suppl. p. 430 (1798).

Poona, April to June; Bombay, August to December.

53. CATOCHRYSOPS PATALA.

Lyc. patala, Kollar, Hüg. Kaschm. iv. 2, p. 418 (1848).

Poona, November to May.

54. CATOCHRYSOPS HAPALINA.

Catochrysops hapalina, Butler, P. Z. S. 1883, p. 148, pl. 24. figs. 2, 3.

Poona, January to May.

55. CATOCHRYSOPS THESEUS, n. sp. (Plate IX. fig. 8.)

Bombay, October.

♂. Above like *C. cnejus*, below greyish white; fringe grey on fore wings, markings greyish brown, marginal line brown, submarginal and discal macular lines arranged as in *C. hapalina*, but the markings broader, the spots running into each other forming two almost clear bands; hind wing with a subcostal black spot near the base and another below it, a lunular streak at the end of the cell, two black spots on an orange ground near the anal angle; border greyish brown; submarginal and discal whorl of markings as in *C. cnejus*, but darker, broader, and running into each other, almost forming bands; the discal band commencing with a longitudinal sub-

costal deep black streak ; all the markings in both wings surrounded by whitish.

Expanse of wings $1\frac{2}{10}$ inch.

56. *CATOCHRYSOPS NICOLA*, n. sp.

Poona, December.

♀. Upper side pale blue ; both wings with broad costal and outer black borders, deepest at the apex ; hind wings with five marginal largish black spots surrounded by yellowish commencing near the anal angle, one in each interspace, with whitish streaks above each spot : underside pale greyish, markings greyish brown surrounded by white, a streak at end of each cell, a whorl of discal square spots, a row of marginal and submarginal square spots, the submarginal spots having a white band internally ; a subbasal centre spot and three others below it in a line, and two black spots on orange ground near anal angle.

Expanse of wings $1\frac{2}{10}$ inch.

This is closely allied to *C. pandava*, and may probably be only a local form of that species.

57. *ZIZERA OSSA*, n. sp. (Plate IX. figs. 11 ♂, 12 ♀.)

Poona, September to June ; Bombay, September to October.

Pale bluish grey above ; costa and outer border of all the wings black ; the breadth of the outer border of the fore wings differs a little in the males, but is much wider in the females, is diffused inwardly, and often occupies nearly half the wing ; underside pale brownish grey, with the markings as in *Zizera maha*, Kollar, and *Zizera diluta*, Felder.

Expanse of wings $1\frac{1}{10}$ inch.

A very distinct and pretty little species ; in great plenty in Bombay during September.

58. *ZIZERA INDICA*.

Lycæna indica, Murray, Trans. Ent. Soc. 1874, p. 525.

Poona, December to June ; Ahmednuggur, June.

59. *ZIZERA KARSANDRA*.

Polyommatus karsandra, Moore, P. Z. S. 1865, p. 505, pl. 31. fig. 7.

Poona, September to April ; Bombay, August ; Sattara, November ; Ahmednuggur, August to November.

60. *ZIZERA PYGMÆA*.

Lycæna pygmæa, Snellen, Tijl. voor Ent. xix. pl. 7. fig. 3 (1876).

Bombay, November ; Poona, January to March.

61. *NACADUBA ARDATES*.

Lycæna ardates, Moore, P. Z. S. 1874, p. 574, pl. 67. fig. 1.

Poona, March, June, and November ; Belgaum, September ; Ahmednuggur, June ; Bombay, July, September, and November.

62. CHILADES LAIUS.

Papilio laius, Cramer, Pap. Exot. iv. pl. 319. figs. D, E (1782).

Poona, October to June.

63. CHILADES VARUNANA.

Polyommatus varunana, Moore, P. Z. S. 1865, p. 772, pl. 41. fig. 6.

Poona, May.

64. TALICADA NYSEUS.

Polyommatus nyseus, Guérin-Ménéville, in Delessert's Souv. Voy. Inde, pt. ii. p. 78, pl. 22. figs. 1, 1a (1843).

Poona, September to June; Belgaum, September and October.

A very local insect.

65. CYANIRIS ALBIDISCA.

Cyaniris albidisca, Moore, P. Z. S. 1883, p. 524, pl. 68. fig. 7.

Poona, January.

66. MEGISBA GUNGA, n. sp. (Plate IX. fig. 7.)

Poona, March.

Above black; fore wings with a white patch in the centre, extending from below the cell to the hinder margin; hind wings with an apical and anal underneath spot showing through; otherwise unmarked; fringe white.

Underside milk-white; wings with a streak at end of each cell; a few marks on costa of fore wings, marginal lines, a row of submarginal marks, then another line and a row of discal streaks, and on hind wings a further middle row of streaks, all very thin and of a reddish-grey colour; hind wing with a black subcostal spot, a spot on centre of anal margin, a spot between these spots, one near the apex and another near the anal angle.

Expanse of wings $1\frac{1}{10}$ inch.

67. CASTALIUS ROSIMON.

Pap. rosimon, Fabr. Mant. Ins. ii. p. 71 (1787).

Poona, January and February, March and May; Bombay, October to December.

68. CASTALIUS CHOTA, n. sp.

Smaller than typical *C. rosimon*. Upper side with the marginal bands in both sexes narrow, and the discal spots smaller. On the underside of both wings the spots are also much smaller.

Expanse $\frac{7}{10}$ to $\frac{9}{10}$ inch.

Poona, February, May.

69. TARUCUS PLINIUS.

Hesperia plinius, Fabr. Ent. Syst. iii. pt. 1, p. 284 (1793).

Poona, September to June, very plentiful; Sattara, June and November; Bombay, July, September, and December.

70. TARUCUS NARA.

Lycæna nara, Kollar, Hüg. Kaschm. iv. 2, p. 421 (1848).

Poona, October, December, January, April, and May; Bombay, July to December; Ahmednuggur, August and September.

71. TARUCUS THEOPHRASTUS.

Hesperia theophrastus, Fabr. Ent. Syst. iii. pt. 1, p. 281 (1793).

Poona, September, November, and January; Bombay, October.

72. AZANUS UBALDUS.

Pap. ubaldus, Cramer, Pap. Exot. iv. pl. 390. figs. L, M (1782).

Poona, November and January.

73. AZANUS ZENA.

Lycæna zena, Moore, P. Z. S. 1865, p. 505, pl. 31. fig. 9.

Poona, November to January and in August; Ahmednuggur, June, August, and September.

74. APHNÆUS ELIMA.

Aphnæus elima, Moore, Ann. & Mag. Nat. Hist. ser. 4, vol. xx. p. 51 (1877).

Poona, November to May.

75. APHNÆUS TIGRINUS.

Aphnæus tigrinus, Moore, Journ. As. Soc. Bengal, 1884, p. 10.

Poona, October, December, May, and June.

76. APHNÆUS VULCANUS.

Pap. vulcanus, Fabr. Syst. Ent. p. 519 (1775).

Poona, May.

77. APHNÆUS SCHISTACEUS.

Aphnæus schistaceus, Moore, Lep. Ceylon, i. p. 106, pl. 41. figs. 3, 3a, ♂ ♀ (1881).

Sattara, September.

78. APHNÆUS ICTIS.

A. ictis, Hewitson, Ill. D. L. p. 61, pl. 25. figs. 8, 9 (1865).

Poona, November to April.

79. VIRACHOLA PERSE.

D. perse, Hewitson, Ill. D. L. pl. 8. figs. 19, 20 (1863).

Kandalla, December; Bombay.

80. VIRACHOLA ISOCRATES.

Hesperia isocrates, Fabr. Ent. Syst. iii. pt. 1, p. 266 (1793).

Poona, October to May; Khandalla, December; Bombay, July to December.

81. DEUDORIX EPIJARBAS.

Dipsas epijarbas, Moore, Catal. Lep. Mus. E. I. C. i. p. 32 (1857).

Bombay, October.

82. BASPA MELAMPUS.

Pap. melampus, Cramer, Pap. Exot. iv. pl. 362. figs. G, H (1782).
Poona, November, December, and April; Belgaum; Bombay, October and November.

83. TAJURIA LONGINUS.

Hesperia longinus, Fabr. Ent. Syst. Suppl. p. 430 (1798).

Poona, November and December; Bombay, November.

84. TAJURIA JEHANA.

Tajuria jehana, Moore, P. Z. S. 1883, p. 529, pl. 49. fig. 7.

Poona, March and December; Bombay, July and November.

85. ANOPS PHÆDRUS.

Pap. phædrus, Fabr. Spec. Ins. ii. p. 125 (1781).

Poona, November; Bombay, July, September, and October.

PAPILIONIDÆ.

PIERINÆ.

86. PONTIA XIPHIA.

Pap. xiphia, Fabr. Spec. Ins. ii. p. 43 (1781).

Poona, October to June; Matheran; Bombay, October, November, and December.

87. TERIAS LÆTA.

T. læta, Boisd. Sp. Gén. i. p. 174 (1836).

Poona, October to June; Ahmednuggur, September, October, and November; Bombay, July, October, November, and December.

88. TERIAS DRONA.

Ter. drona, Horsf. Cat. Lep. E. I. C. p. 137, pl. 1. fig. 13 (1829).

Poona, November and December.

89. TERIAS VENATA.

Ter. venata, Moore, Cat. Lep. E. I. C. i. p. 65, pl. 2. fig. 2 (1857).

Poona, June and September; Ahmednuggur, June and September; Bombay, July to October.

90. *TERIAS RUBELLA*.

Ter. rubella, Wall. Trans. Ent. Soc. ser. 3, vol. iv. p. 323 (1867).
Poona, October to April; Belgaum, September and October;
Sattara, October and November; Bombay in 1877.

91. *TERIAS HECABE*.

Pap. hecabe, Linn. Mus. Ulr. p. 249 (1764).
Common everywhere, from November to May.

92. *TERIAS HECABEOIDES*.

Ter. hecabeoides, Mén. Cat. Mus. Petr., Lep. i. p. 85, pl. 2. fig. 2
(1855).

Common everywhere, from October to April.

93. *TERIAS ÆSIOPE*.

Ter. æsiope, Mén. Cat. Mus. Petr., Lep. i. p. 85, pl. 2. fig. 3
(1855).

Common everywhere, from October to April.

I took a male *T. hecabeoides* in coitu with a female of this species
in September 1882.

94. *TERIAS EXCAVATA*.

Ter. excavata, Moore, P. Z. S. 1882, p. 252.
Poona, October and November; Sattara, October.

95. *TERIAS PURREEA*.

Ter. purreea, Moore, P. Z. S. 1882, p. 252.
Poona, November and January.

96. *TERIAS IRREGULARIS*.

Terias irregularis, Moore, P. Z. S. 1882, p. 253.
Poona, January.

97. *TERIAS ASPHODELUS*.

Terias asphodelus, Butler, P. Z. S. 1883, p. 151, pl. 24. fig. 13.
Poona, January, February, March, and April.

98. *TERIAS NARCISSUS*.

Ter. narcissus, Butler, P. Z. S. 1883, p. 151.
Poona, December.

99. *BELENOIS MESENTINA*.

Papilio mesentina, Cramer, Pap. Exot. iii. pl. 270. figs. A, B
(1782).

Common everywhere.

100. HUPHINA PHRYNE.

Papilio phryne, Fabr. Syst. Ent. p. 473 (1775).

Common everywhere.

101. HUPHINA ZEUXIPPE.

Pap. zeuxippe, Cramer, Pap. Exot. iv. pl. 362. figs. E, F (1782).

Poona, April to June ; Belgaum.

Underside in both sexes like a faded *H. phryne*. Upper side like a male *H. phryne* without its vein-markings ; both sexes much more like each other than is the case with *H. phryne* : the female has the black border-markings darker than in the male, a spot near the hinder margin, and a black band all round the cell in the fore wings ; on the hind wings a submarginal row of spots, and the markings of the veins showing faintly through the wing.

102. HUPHINA CASSIDA.

Pap. danaus cassida, Fabr. Ent. Syst. Suppl. p. 427, n. 595, 596 (1798).

Poona, October to April.

Below, the hind wings in both sexes are of a dull chrome-yellow colour, generally quite unmarked, sometimes with the subcostal and medial nervures greenish grey. Above, both sexes are very similar and resemble the male of *H. zeuxippe* ; but sometimes the hind wings of the males are quite immaculate, and the female has in the fore wing a diffused greyish band on the costa as far as the end of the cell, extending into and filling one third of the cell, going round the end of the cell and running partly up the third medial nervule, also a spot near the hinder margin, and on the hind wings a few faint submarginal spots, which, however, in many specimens are entirely absent.

103. HUPHINA PALLIDA, n. sp.

Poona, January and February ; Bombay, February.

Allied to the former, but much smaller : ♂ ♀ pure white above, base with grey irrorations, which run up the costa of the fore wings to the end of the cell, and form a faint band filling one third of the cell ; apical border as in the preceding species, but more attenuated downwards. Hind wings immaculate, the usual macular band being altogether absent in most specimens, and very faintly indicated by spots in one or two of the veins in a few specimens.

Below, fore wing pure white, apex and the entire surface of hind wing pale yellowish fleshy-buff colour ; fore wings with the veins round the cell grey, a streak extending partly up the third medial nervule, a blackish spot between the second and third medial nervules, another near the hinder angle, between the submedian nervure and first median nervule. Hind wings unmarked.

The female only differs from the male in three extra marks on the upper surface of the fore wing, *i. e.* a streak from the end of the

cell in the third median nervule, the spot at the end of this streak on the interspace between this and the second median nervule being much larger and more round, and by a spot near the hinder angle corresponding to the spot on the underside.

Expanse of wings, ♂ $1\frac{4}{10}$ – $1\frac{6}{10}$ inch, ♀ $1\frac{5}{10}$ – $1\frac{8}{10}$.

104. *APPIAS LIBYTHEA*.

Pap. libythea, Fabr. Syst. Ent. p. 471 (1775).

Poona, October to April; Bombay, July to December.

105. *APPIAS ARES*, n. sp.

Poona, November to March.

Allied to *A. libythea*, but smaller and altogether paler, and very different in the female.

♂. Above and below of the same white spotless colour as *A. libythea*, with the same kind of greyish irrorations on the costa above, but differing at the apex and outer border of the fore wings in being marked with only a few greyish-brown atoms, instead of the inwardly-toothed black border of *A. libythea*.

♀. Above white; fore wing with the costa finely grey, a streak at the end of the cell, a deep costal band on the basal half, filling the upper third of the cell, an apical band, commencing from the first subcostal nervule, and gradually fining down the outer border of the hinder angle, iron-grey; hind wings immaculate. Below white, apex of fore wings and the entire surface of hind wings slightly suffused with chrome-yellow, darkest in the basal portion of the costa of the hind wings; both wings quite unmarked.

Expanse of wings, ♂ $2\frac{1}{10}$ inches, ♀ $1\frac{9}{10}$.

106. *HIPOSCRITIA SHIVA*, n. sp. (Plate IX. figs. 1 ♂, 2 ♀.)

Parbutti Hill, Poona, December to April; very plentiful, but confined entirely to this hill.

Allied to *H. narendra*, Moore, but much smaller.

♂. Very much like a diminutive *H. narendra* above, but the hind wings are quite unmarked. Below, the fore wings have the black band limiting the apical patch much broader, and the hind wings are pale dirty bone-colour and quite unmarked.

♀. Has the apical patch like the female of *narendra* with the costa irrorated with the same colour, but without the broad costal band of that insect; the hind wings have a black macular border. Below, it is very similar to the male, with the subapical band broader, and the hind wings irrorated with grey and a black dot at the end of the cell.

Expanse of wings of *H. shiva*, $2\frac{1}{10}$ inches.

The female of *H. narendra*, which has never been described, has below a broad costal black band, a broad apical black patch with the apex suffused with chrome-yellow. Hind wings chrome-yellow, deeply irrorated with dark greenish grey.

Expanse of wings of *H. narendra*, $2\frac{3}{10}$ inches.

106 A. DELIAS EUCHARIS.

Pap. eucharis, Drury, Ill. Exot. Ent. ii. pl. 10. figs. 5, 6 (1773).

Common everywhere all the year round. Larvæ feed on *Santalum album*, length $1\frac{1}{2}$ inch, colour greenish brown. Pupa pale yellow, spotted black, suspended by a thread round the body; they are much troubled by the Ichneumon, and of fifteen pupæ found on a gate-post at Poona, only one had escaped, the Ichneumon-larvæ being clearly visible through the skin of the pupa, there being from two to seven larvæ in each pupa.

107. NEPHERONIA GAEA.

Nepheronia gaea, Felder, Reise Nov., Lep. ii. p. 130 (1865).

Poona, November to April; Bombay, October to November.

I have two female examples taken at Poona in November, with yellow on the abdominal border of the hind wings, above as in females of *N. happia*.

108. NEPHERONIA HIPPIA.

Pap. hippia, Fabr. Mant. Ins. ii. p. 55 (1787).

Bombay, October, November, and December.

The male of this species has a much deeper black border to the hind wings than in the preceding species, and the female is altogether a darker insect, and has generally a good deal of chrome-yellow on the hind wings; at least this is the case with all the females of this species I have yet met with, whereas out of all the numerous examples of *N. gaea* I have taken (much the commoner species in the Deccan), I have only seen two with any yellow on them at all.

109. CATOPSILIA PYRANTHE.

Pap. pyranthe, Linn. Mus. Ulr. p. 245 (1764).

Common everywhere all the year round.

110. CATOPSILIA THISORELLA.

Callidryas thisorella, Boisd. Sp. Gén. i. p. 609 (1836).

Poona, November to June; Ahmednuggur, October to November.

111. CATOPSILIA ILEA.

Pap. ilea, Fabr. Ent. Syst. Suppl. p. 426 (1798).

Poona, November to June; Ahmednuggur, September and October.

112. CATOPSILIA PHILIPPINA.

Pap. philippina, Cram. Pap. Exot. iv. pl. 361. figs. C, D (1782).

Poona, October to April; Ahmednuggur, November; Bombay, March, July, and October.

113. CATOPSILIA CROCALE.

Pap. crocale, Cramer, *Pap. Exot.* i. pl. 55. figs. C, D (1779).

Poona, June and October; Ahmednuggur, June; Belgaum, September; Bombay, August to November.

Larvæ found feeding on Sumatran Acacia. Larval stage 20 days.

114. CATOPSILIA HEERA, n. sp.

Belgaum, September; Poona, November and December.

♂. Above like a small *C. crocale*; below also coloured like that species, but with a gilded dot at the end of the cell in all the wings, and sometimes with two gilded dots at the end of the cell on the hind wings.

♀. Above, coloured and marked like *C. crocale*; below in all respects like a pale female of *C. catilla*.

Expanse of wings, ♂ ♀ $2\frac{3}{10}$ inches.

This looks like a diminutive hybrid between *C. crocale* and *C. catilla*; but I have a long series from the same localities, all showing the same constant characteristics, and have gone through them with all the specimens of the genus in the British Museum, and am of opinion it is a good species.

115. CATOPSILIA CATILLA.

Pap. catilla, Cram. *Pap. Exot.* iii. pl. 229. figs. D, E (1782).

Common everywhere all the year round. Larvæ found feeding on Sumatran Acacia, length $1\frac{1}{2}$ to 2 inches, in the hot weather, and from $2\frac{1}{2}$ to 3 inches in the rains; larval stage 18 to 22 days.

116. COLIAS FIELDII.

Col. fieldii, Mén. *Cat. Mus. Petr.*, *Lep.* i. p. 79, pl. 1. fig. 5 (1855).
Bombay in 1877. I did not observe it in 1882 or 1883.

117. HEBOMOIA GLAUCIPPE.

Pap. glaucippe, Linn. *Mus. Ulr.* p. 240 (1764).

Khandalla Ghats, November and December.

It appears to be purely a mountain insect in these parts, and was never observed in the plains above or below.

118. IXIAS MERIDIONALIS, n. sp. (Plate IX. fig. 5 ♀.)

Poona, June, October, and November; Ahmednuggur, October and November; Belgaum, September and October; Bombay, July to December.

Allied to *I. marianne*, Cramer, but altogether a brighter coloured insect.

♂. Above differs in the clearer white ground-colour of the wings, with the basal irrorations very thinly blue-grey, the inner black margin of the apical patch of the fore wings narrower, the

black central knob squarer and cleaner cut, and the black band on hind wings narrower and not continued to the anal angle, but fining down and stopping before the first medial nervule, being produced to the angle in the shape of a bluish-grey shade which runs into the black border at the centre, giving the border an appearance of uniformity in depth throughout. Below, the coloration is very much brighter, more ochreous and altogether different; the apical orange patch is almost as large and as brilliant as it is above, and the discal series of spots on the hind wing are white, large, bordered with chocolate-brown, very much as in female *I. marianne* but larger.

♀. Differs from *I. marianne* of that sex above in having the inner border of the apical patch as in *I. agnivena* (Moore) and *I. dapaipura* (Butler), the broad streak from the costa terminating at the end of the cell. The border of the hind wings is narrow, exactly as in the male; and on the underside the markings are as in the male but larger, and the general coloration is very bright, brighter even than in *I. agnivena*, the fore wings being suffused with bright orange, and the hind wings with bright chrome-yellow.

Expanse of wings, ♂ ♀, $2\frac{3}{10}$ inches.

This species is no doubt the southern form of *I. marianne* (Cramer.), but Cramer's plate is so badly coloured, the difficulty is in determining what Cramer's type of *I. marianne* really is. I have brought home many hundreds of examples of these white *Ixias*, and have gone through them all, and through the B. M. collection, and through Mr. Moore's splendid collection; and with Mr. Butler's assistance have come to the conclusion that Cramer's type represents the N.W. Indian form, of which I have several specimens from Mirzapore, and other places in N.W. India.

119. IXIAS AGNIVENA.

Ixias agnivena, Moore, Ann. & Mag. Nat. Hist. ser. 4, vol. xx. p. 50 (1877).

Poona, November to April.

120. IXIAS CUMBALLA, n. sp. (Plate IX. figs. 13 ♂, 14 ♀.)

Bombay, July and August.

Allied to *I. marianne* (Cramer).

♂. Above like a large *I. meridionalis*. Below, fore wings, above the first median nervule and the outer surface of the hind wings, bright sulphur-yellow. Fore wings with the entire space below the cell pure white, apical orange patch hardly visible through the wing, the discal spots deep black instead of brown; the entire surface of both wings with hardly any of the usual striations. Hind wings with the usual discal spots large, deep chocolate-brown, with a slight indication of white visible in one or two specimens, but generally of a bright chocolate-brown without any white at all.

♀. Above with a great deal of black, the inner border of the

apical patch of the fore wings being so deep as to make the patch occupy more than half the wings; hind wings also with a very deep black border. It may here be noted that in all species of Indian *Ixias* the depth of the border of the hind wings and the depth of the inner border of the apical patch of the fore wings varies more or less. Below, the markings are as in the male, but the brown patch near the hinder angle is very much larger, and the discal series of large spots in the hind wings show more or less white in them; but the general coloration of the wings differs much from the males, the apical orange patch being almost as bright as it is above, and the general coloration of the wings is dull pale ochreous white covered with pale brown striæ.

Expanse of wings, ♂ ♀ $2\frac{5}{10}$ inches.

Taken on Cumballa Hill, Bombay, and I have an example also taken on a hill near Belgaum.

121. *IXIAS COLABA*, n. sp. (Plate IX. fig. 6.)

Bombay, 1876.

Allied to *I. pyrene* (Linn.).

♂. Above like *I. dharmasalæ*, Butler; the black basal irrorations are denser, the inner border of apical patch on the fore wings is narrower, the marginal border of the hind wings is deeper and not macular. Below, the general coloration is the same, but there are no striations, except a few very faint ones near the base and at the apex of the fore wings; there is a brownish spot at the end of the cell on the fore wings, also a faint spot on the costal third near the apex, a few very faint discal spots across the space occupied by the apical patch above, and a spot in the centre of the costa of the hind wings; otherwise both wings are clear lemon-yellow and quite unmarked.

Expanse of wings, $2\frac{5}{10}$ inches.

122. *IXIAS JHODA*, n. sp. (Plate IX. figs. 3 ♂, 4 ♀.)

Bombay, December and January.

Allied to *I. pyrene* (Linn.), near *I. maulmainensis* (Moore), and *I. dharmasalæ* (Butler).

♂. Above like the latter, inner border of apical patch on primaries very narrow; hind wings with the border almost absent, reduced to spots on costal and subcostal nervules, and minute dots in the remaining nervules. Below, apical third of fore wings and the entire surface of hind wings deep chrome-yellow; remainder of fore wings pure primrose; the costa and apex of fore wings and the entire surface of hind wings covered with brown striæ; fore wings with a blind black spot at the end of the cell, and four, sometimes five, faint brown subapical spots; hind wing with a brown dot at the end of the cell, a large chocolate-brown spot in the centre of the costa, and four discal spots of the same colour, all with white pupils, the third discal spot the largest.

♀. Above pale primrose, with the markings somewhat as in

I. dharmalæ of the same sex, but the inner border of the apical patch is composed of a broad band from the costa to the lower end of the cell, and then is connected with end of the patch near the hinder angle by a faint line, the orange space of the apical patch being in some examples pure yellow, and in some with a faint orange tinge; hind wings with the outer border as in the male. Below, with the markings as in the male, but the discal spots across the space occupied by the apical patch above are much larger and blacker; there are more of them, generally six, and the first three have white pupils; some of the specimens have a large blackish brown patch near the hinder angle, which is altogether absent in all the males; the discal spots in the hind wings are large, four in number, and are white on a suffused brown belt. Many of the females are pure albinos.

Expanse of wings, ♂ $2\frac{1}{10}$, ♀ 2 inches.

123. *IXIAS DHARMSALÆ.*

I. dharmalæ, Butler, P. Z. S. 1880, p. 150, pl. xv. figs. 8, 9.

Bombay, September to December.

All the females captured are white. I have this species also from Deesa.

124. *IXIAS KAUSALA.*

I. kausala, Moore, Ann. & Mag. Nat. Hist. ser. 4, vol. xx. p. 49 (1877).

Bombay, taken in 1877.

125. *TERACOLUS FULVIA.*

Idmais fulvia, Wallace, Trans. Ent. Soc. ser. 3, vol. iv. p. 392, pl. 9. fig. 5 (1867).

Poona, October.

126. *TERACOLUS CYPRÆA.*

Pap. cypræa, Fabr. Mant. Ins. p. 22 (1787).

Bombay, taken in 1877.

127. *TERACOLUS KENNEDII.*

T. kennedii, C. Swinhoe, P. Z. S. 1884, p. 440.

Ahmednuggur, August, September, and October. Very plentiful, and apparently quite a local insect.

128. *TERACOLUS DANAË.*

Pap. danaë, Fabr. Syst. Ent. p. 476 (1775).

Bombay, Poona, and Belgaum.

I took it in Bombay in 1877, but did not succeed in getting it through my own collector during the past two years, and therefore no date is recorded; but I received examples from both Poona and

Belgaum from friends in 1883. It is always a rare insect in the Deccan.

129. TERACOLUS TAPLINI.

T. taplini, C. Swinhoe, P. Z. S. 1884, p. 440, pl. 40. figs. 8, 9. Bombay, in coll. B. M.; Poona, May.

I took two examples in Bombay in 1877, a coloured drawing of one of which I still have; and Mr. Taplin sent me one captured last May, from Poona.

130. TERACOLUS PERNOTATUS.

T. pernotatus, Butler, P. Z. S. 1876, p. 159, pl. 7. fig. 1. Poona, October and November.

131. TERACOLUS ETRIDA.

Anthocharis etrida, Boisd. Sp. Gén. i. p. 576 (1836).

Poona, November, January, February, and June; Ahmednuggur, November; Bombay, September.

132. TERACOLUS BIMBURA.

T. bimbura, Butler, P. Z. S. 1876, p. 161, pl. 7. figs. 3-4. Poona, October and January.

Butler's type came from Bimbur in Cashmir; but the underside of the secondaries has such extraordinary markings, and is so different from anything else in the genus, there is no mistaking the insect.

133. TERACOLUS PSEUDEVANTHE.

T. pseudevanthe, Butler, P. Z. S. 1876, p. 164, pl. 7. fig. 16.

Belgaum, September; Bombay, July and August, November and December.

134. TERACOLUS EUCHARIS.

Pap. eucharis, Fabr. Syst. Nat. p. 472 (1775). Bombay, February; very plentiful.

135. TERACOLUS TITEA.

Pieris titea, Godt. Ent. Méth. ix. p. 124 (1819).

Bombay, December; very plentiful.

The above three are very closely allied to each other. They are probably seasonal varieties of each other, but with a very long series I have been able to separate them without leaving any intermediates.

PAPILIONINÆ.

136. ILIADES POLYMNESTOR.

Pap. polymnestor, Cram. Pap. Exot. i. pl. 53. figs. A, B (1779).

Matheran; Parbutti hill, Poona, November; would probably be found on the sides of most of the larger mountains in the district.

137. OPHEIDES ERITHONIUS.

Pap. erithonius, Cram. Pap. Exot. iii. pl. 232. figs. A, B (1782).

Common everywhere throughout the year. Larvæ feed on citron, lime, and orange. At Poona Mr. Taplin has reared them all the year round; both dark and pale yellow forms. Larval stage 14 days; pupal stage 14 days.

138. CHILASA DISSIMILIS.

Pap. dissimilis, Linn. Mus. Ulr. p. 301 (1764).

Khandalla, December; affects the hill-sides; Bombay, taken in 1877.

139. CHILASA CLYTIA.

Pap. clytia, Linn. Mus. Ulr. p. 296 (1764).

Bombay, taken in 1877.

140. LAERTIAS PAMMON.

Pap. pammon, Linn. Mus. Ulr. p. 189 (1764).

Pap. polytes, Linn.

Common everywhere throughout the year; the females of both *P. hector* and *P. diphilus* form. The larva and pupa are very similar in appearance to those of *P. erithonius*. The larvæ feed on citron, lime, and orange. Larval stage 14 days; pupal stage 14 days. The pupa is sometimes bright green and sometimes chocolate-brown. Both kinds are equally common, and each produces both sexes.

141. MENELAIDES DIPHILUS.

Pap. diphilus, Esper, Ausl. Schmett. pl. 40 B. fig. 1 (1785-98).

Common everywhere from October till June. It varies much in size and markings; some of the males taken in the cold weather at Ahmednuggur are very small, measuring less than 3 inches in the expanse of their wings.

142. MENELAIDES HECTOR.

Pap. hector, Linn. Mus. Ulr. p. 183 (1764).

Poona, March and June; Belgaum, October; Boubay, July, September, and October.

143. CHARUS HELENUS.

Pap. helenus, Linn. Mus. Ulr. p. 185 (1764).

Poona.

144. ZETHES AGAMEMNON.

Pap. agamemnon, Linn. Mus. Ulr. p. 202 (1764).

Poona, Belgaum, Ahmednuggur, October to June; Bombay, all the year round. Larvæ feed on *Gnaltherea longifolia*, colour dark green with yellowish shades; more humpbacked than the larvæ of *P. pammon*, with sharp spines on the shoulders. Larval stage 18 to 21 days; pupal stage the same.

145. DELCHINA THERMODUSA, n. sp.

Matheran, November and December.

Allied to *D. teredon*, Felder, and *D. sarpedon*, Linn. The green band across the middle of the wings is much broader in the centre, touching the discoidal cell at the first median nervule, and fining upwards and downwards quite suddenly; the band on the fore wing being also composed of eight pieces instead of nine, as in the other two species, the first apical spot being absent. Hind wing with the tail produced as in *D. teredon*.

Underside differs from both on the hind wing in the very narrow subbasal black latitudinal streak margining the green band, in the absence of the black suffusion in the costal and subcostal interspaces, and in the black and red space at the end of the cell being very limited and pushed out by the green band, and in the general coloration of both wings being very much paler. These characteristics are identical in the four specimens in my collection.

Expanse of wings $3\frac{5}{10}$ inches. In coll. C. Swinhoe.

HESPERIIDÆ.

146. SARANGESA PURENDRA.

Pyrgus purendra, Moore, Cat. Lep. Mus. E. I. C. i. p. 250.

Bombay, August to December.

147. PYRGUS GALBA.

Hesperia galba, Fabr. Ent. Syst. iii. 1, p. 352 (1793).

Poona, January and March; Bombay, August.

148. AMPITTIA CORAS.

Pap. coras, Cram. Pap. Exot. i. pl. 31. fig. F (1775).

Bombay, July to October.

149. ASTICTOPTERUS STELLIFER, Butler.

Astictopterus stellifer, Butler, Trans. Linn. Soc. 1879, p. 555.

Poona, April; Bombay, November.

150. UDASPES FOLUS.

Pap. folus, Cram. Pap. Exot. iv. pl. 354. fig. H (1782).

Poona, Ahmednuggur, Bombay.

I have received it at different times from all these places, but never succeeded in capturing one myself, and consequently no date is recorded.

151. PLESIONEURA LEUCOCERA.

Hesperia leucocera, Kollar, Hugel's Kasch. iv. 2, p. 454, pl. 18. fig. 3.

Bombay, September.

152. PLESIONEURA AMBAREESA.

P. ambareesa, Moore, P. Z. S. 1865, p. 788.

Mahableshwur, May.

153. TELICOTA AUGIAS.

Pap. augias, Linn. Syst. Nat. i. 2, p. 794 (1767).

Poona, September to June; very common.

154. PARNARA BADA.

Hesperia bada, Moore, P. Z. S. 1878, p. 688.

Poona, October, November, and December; Belgaum, September; Bombay, September.

155. PARNARA BEVANI.

Hesperia bevani, Moore, P. Z. S. 1878, p. 688.

Poona, October, November, and December; Bombay, September, January.

156. PARNARA NAROOA.

Hesperia narooa, Moore, P. Z. S. 1878, p. 687, pl. 45. fig. 4.

Poona, November and December.

157. CHAPRA AGNA.

Hesperia agna, Mocre, P. Z. S. 1865, p. 791.

Poona, September, October, and November; Belgaum, September; Bombay, September.

158. CHAPRA MATHIAS.

Hesperia mathias, Fabr. Ent. Syst. Suppl. p. 433 (1798).

Poona, October to May; Ahmednuggur, November; Bombay, July to December.

159. SUASTUS GREMIUS.

Hesperia gremius, Fabr., Butler, Cat. Fabr. Lep. B. M. p. 271, pl. 3. fig. 7, ♀.

Hesperia divodasa, Moore, Cat. Lep. Mus. E. I. C. i. p. 255.

Poona, February and May; Bombay, July to December.

160. ISOTEINON NILGIRIANA.

Isoteinon nilgiriana, Moore, P. Z. S. 1883, p. 533.

Matheran, May.

161. ISOTEINON FLEXILIS, n. sp. (Plate IX. figs. 9, 10.)

Poona, December.

♂ ♀. Upper side dark shining olive-brown; cilia pure white; fore wing with two small semidiaphanous spots, one at the upper end of cell and one above it; three contiguous subapical spots, the top spot very minute and in the male sometimes absent; another outer very minute dot, which also is often absent in the male; and three larger spots obliquely—two in the disk and one touching the submedian nervure; hind wings unmarked. Underside paler, spots as above;

fore wings with a blackish longitudinal shade covering the lower half of the wing; hind wings with an indistinct diffused discal fascia of same colour.

Expanse of wings $1\frac{5}{10}$ inch.

162. *BADAMIA EXCLAMATIONIS*.

Pap. exclamations, Fabr. Syst. Ent. p. 530 (1775).

♀ *Pap. ladon*, Cramer, Pap. Exot. iii. pl. 284. fig. C (1782).

Poona, April, May, and June; Belgaum, September; Mahableshwur, May; Matheran, May; Bombay, July, August, September.

163. *PARATA ALEXIS*.

Pap. alexis, Fabr. Syst. Ent. p. 533 (1775).

Poona, May, June, November, December; Bombay, July, August, and September.

164. *GANGARA THYRSIS*.

Pap. thyrsis, Fabr. Syst. Ent. p. 532 (1775).

Bombay, August to December. Very common just before dark.

EXPLANATION OF PLATE IX.

Fig. 1. *Hiposcritia shiva*, ♂, n. sp., p. 138.

2. — — —, ♀.

3. *Ixias jhoda*, ♂, n. sp., p. 142.

4. — — —, ♀.

5. — — — *meridionalis*, ♀, n. sp., p. 140.

6. — — — *colaba*, ♂, n. sp., p. 141.

7. *Megisba gunga*, n. sp., p. 133.

8. *Catochrysops theseus*, ♂, n. sp., p. 131.

9. *Isotcinon flexilis* (upper side), n. sp., p. 147.

10. — — — (underside).

11. *Zizera ossa*, ♂, n. sp., p. 132.

12. — — —, ♀.

13. *Ixias cumballa*, ♂, n. sp., p. 141.

14. — — —, ♀.

3. On *Echidna acanthion* from Northern Queensland.

By ROBERT COLLETT, C.M.Z.S.

[Received January 13, 1885.]

(Plate X.)

We have in the course of late years several times been informed that the genus *Echidna* extends into Queensland. But although a considerable number of specimens have been obtained from that part of Australia, and several of them have found their way to Europe, still no satisfactory examination of their specific characters as compared with those of the other species has, so far as I know, ever been published.

Thus in Dr. Bennett's interesting paper on *Ornithorhynchus* and their burrows (Proc. Zool. Soc. Lond. 1877, p. 161) it is mentioned that the *Echidna* is very numerous in the Gomarray scrubs, Merugaden;